

**Method for Increasing Peripheral Component Interconnect (PCI) Bus
Throughput Via a Bridge for Memory Read Transfers via Dynamic
Variable Prefetch**

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Abstract

10 The invention provides a high speed PCI-to-PCI bridge structure and
method of use thereof. One embodiment provides a first bus (240) adapted
to facilitate data transfer, a second bus (215) adapted to facilitate data
transfer, and a bridge (350) that couples the first bus to the second bus. The
bridge is adapted to perform memory read, memory read line, and memory
read multiple commands (from the first bus to the second bus).
Advantageously, the bridge (350) responds to the memory read multiple
15 command differently than either the memory read or the memory read line
command.